



**POWERING
THE WORLD
OF SWEETS**



HOSOKAWA BEPEX

TER BRAAK • BEPEX-HUTT • KREUTER

Confectionery & Bakery Technology



CEREAL BAR MANUFACTURING



Universal Bar Line GP-DP Application Examples



Categories of Cereal Bars

Structure:	Soft, Chewy, Crunchy
Binder:	Soft, Chewy, Brittle
Ingredients:	Cereals, Nuts, Fruits, Others
Baking:	Baked, Non-baked
Enrobing:	Natural, Bottom Enrobed, Fully Enrobed, Decorated
Forming:	Rectangular, Shaped

Universal Bar Line GP-DP Application Examples



Universal Bar Line GP-DP Application Examples



Three layered Granola Bars



Universal Bar Line GP-DP Application Examples



Granola Bars with a second layer



Baked Granola Bars



STEP 1 – The Binder

Sugar based binder for Cereal Bars

Basic ingredients:

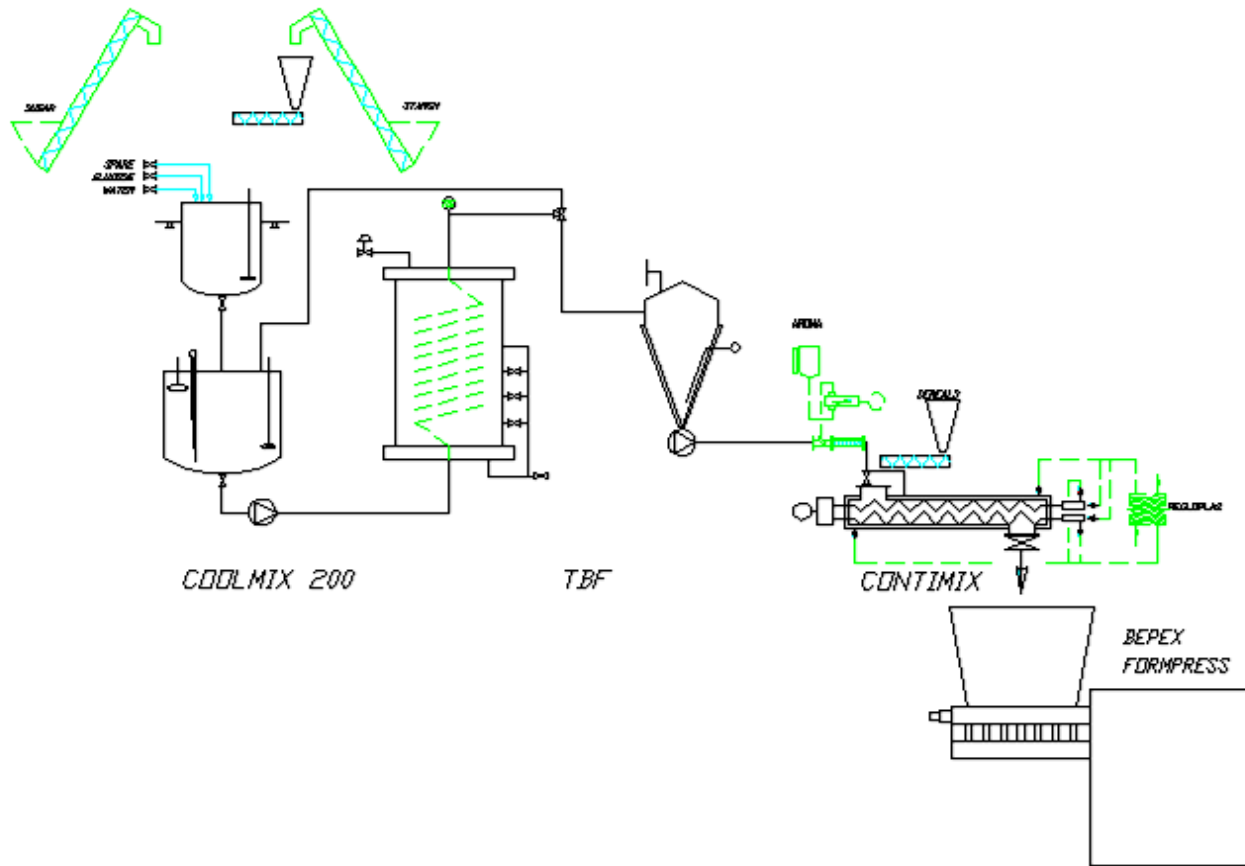
- Water (3-8%)
- Sugar (40-46%)
- High Maltose Glucose 42 DE (40-46%) or
- High Fructose Corn Syrup (42%) same %

Additional Ingredients:

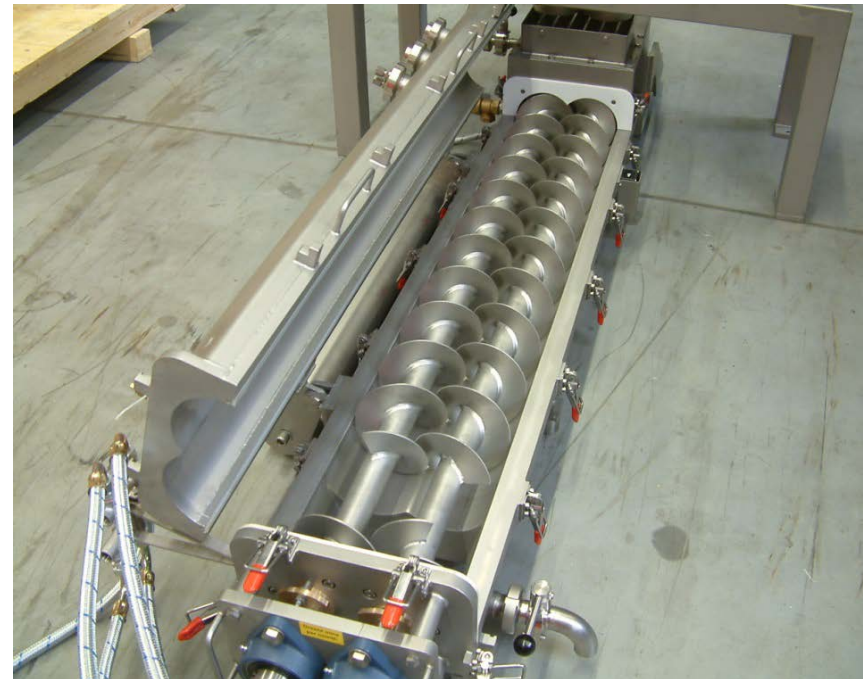
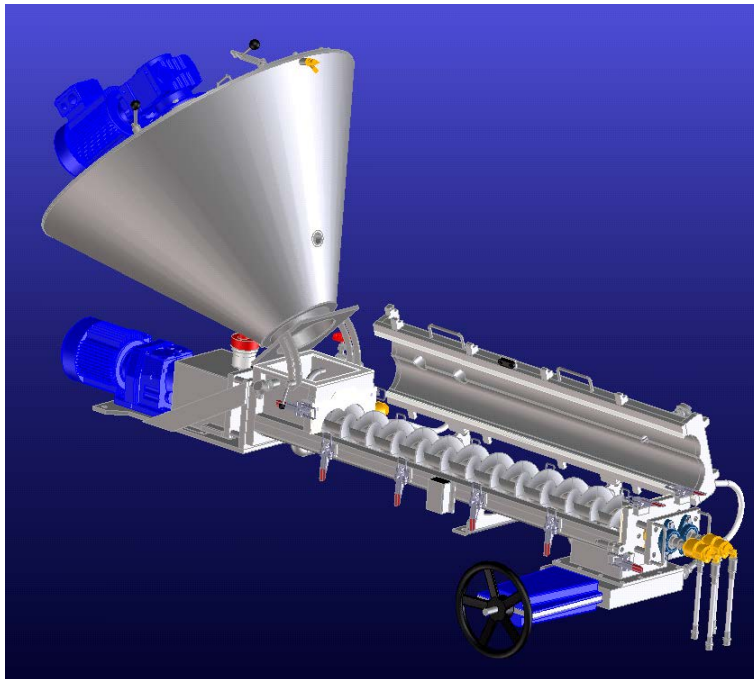
- Honey
- Molasses
- Starch

STEP 1 – The Binder

Single layer Granola Bar with sugar based binder



STEP 2 – The Mixing of Ingredients and Binder with Hosokawa Contimix





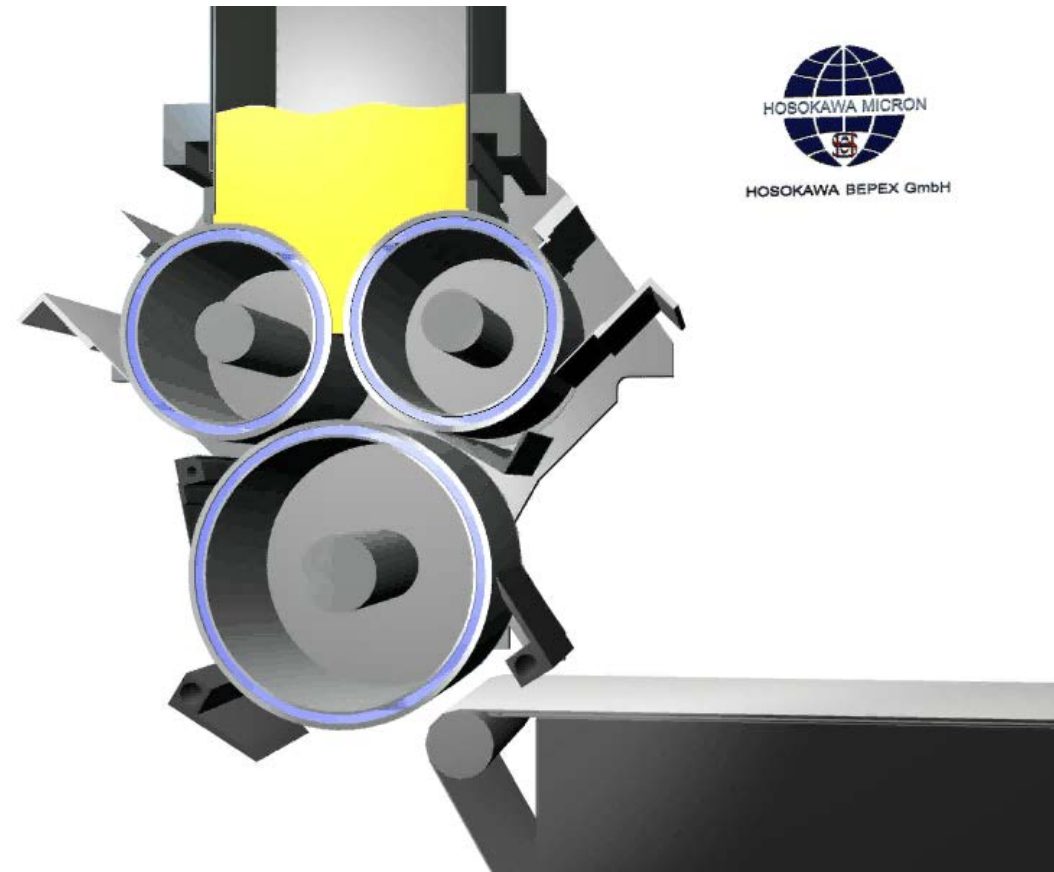
STEP 3 – The Slab Forming Smooth Roller Former Type GP

- Exact Forming of the Product
- Exact Control of Shape and Density
- Very Flexible System
- Top sanitary lay out Adjustable slab thickness
- Modular Assembly Technique (MAT)
- Hopper, housing and side walls, rollers and chute are all double-walled and can be tempered independently from each other



Working principle of the GP former

- Suited for all pressure sensitive masses or aerated masses
- The forming system is working without any pressure according to the dragging principle
- The GP former does not generate any change on the structure of the mass to be processed.
- A gentle forming is guaranteed even for high sponge products by keeping their density







Compression Roller Type EGW 350 in combination with a Contour Roller



STEP 4 – The Slab Cooling Cooling Technology



- Air / Air tunnel type UKK
- Water / Air tunnel type BKK
- High capacity tunnel type HKK
- Chilled tables

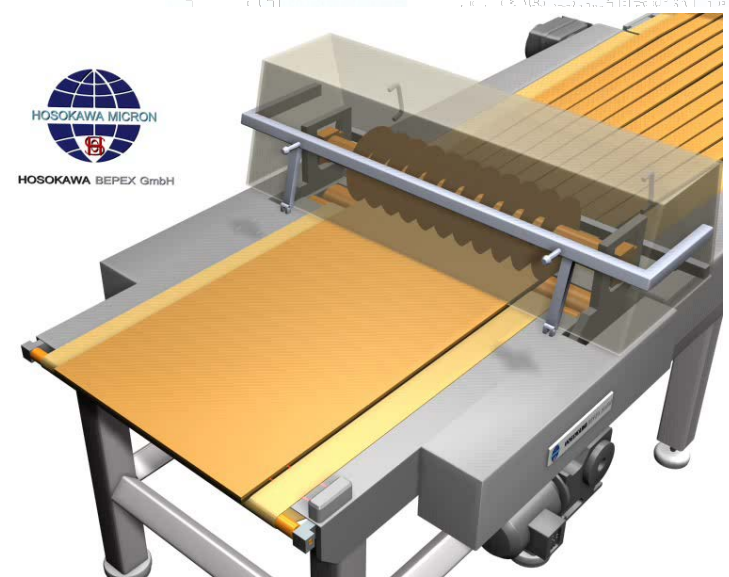
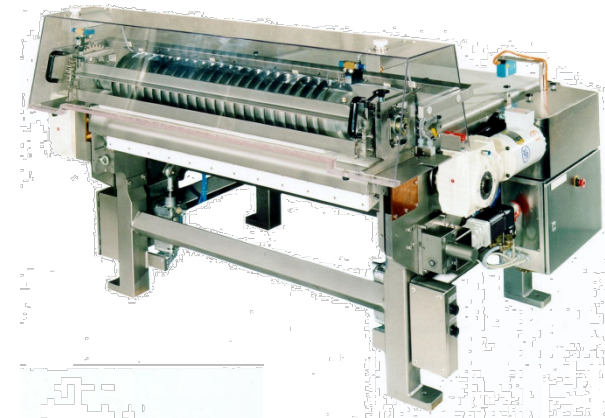
STEP 4 – The Slab Cooling Cooling Tunnel hkk



- High air velocities up to 10 m/s
- For intense and quick cooling of various products
- Strong Design Ensures Energy Savings
- Min. 40 mm Insulation
- Slider bed made of stainless steel
- Convection Cooling
- Direct drive execution
- Accurate belt tracking system aided by optical photo eyes

STEP 5 – The Cutting SG Strand Slitter

- Highest hygienic standard
- Circular knife:
 - can be heated and cooled with water
 - easily and quickly be taken out of the machine
- Modular Assembly Techniques (MAT)
- Very flexible system
- Circular knives made of special hardened knife steel, mirror polished



STEP 5 – The Cutting FA - EB - Fanning Belt

- Fanning and belt in movable design
- All parts in contact with the product are made of food stuff approved material
- No problems with unequal belt length
- Highest hygienic standard design
- Easy cleaning

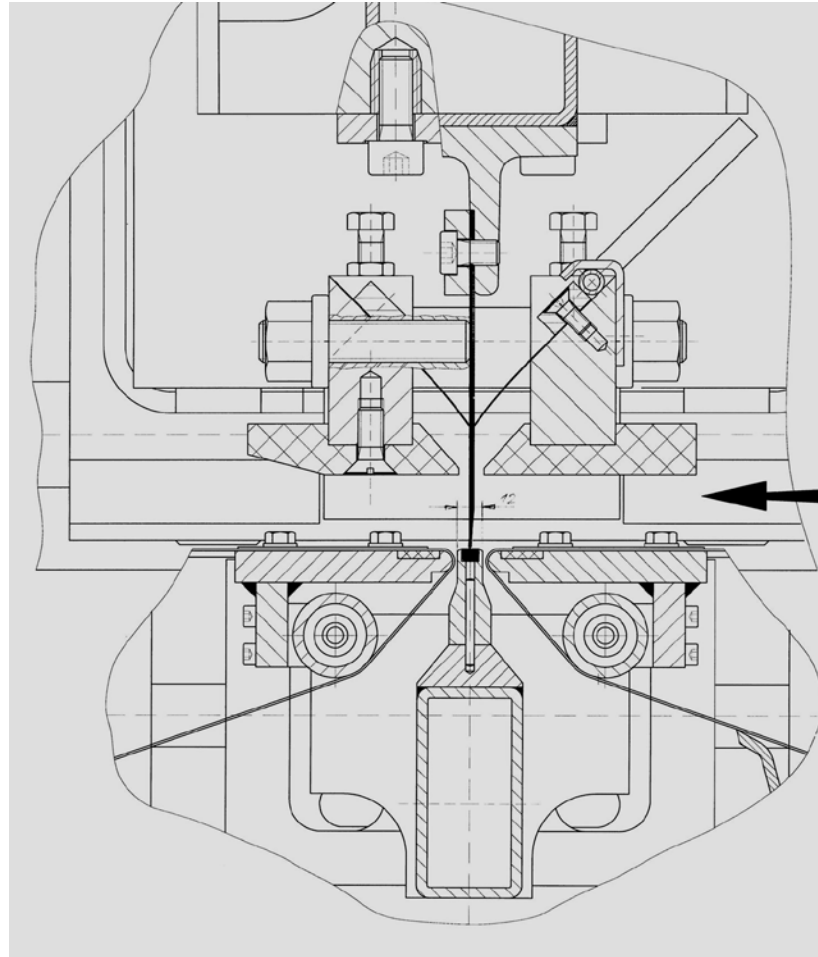


STEP 5 – The Cutting MS Guillotine Cutter

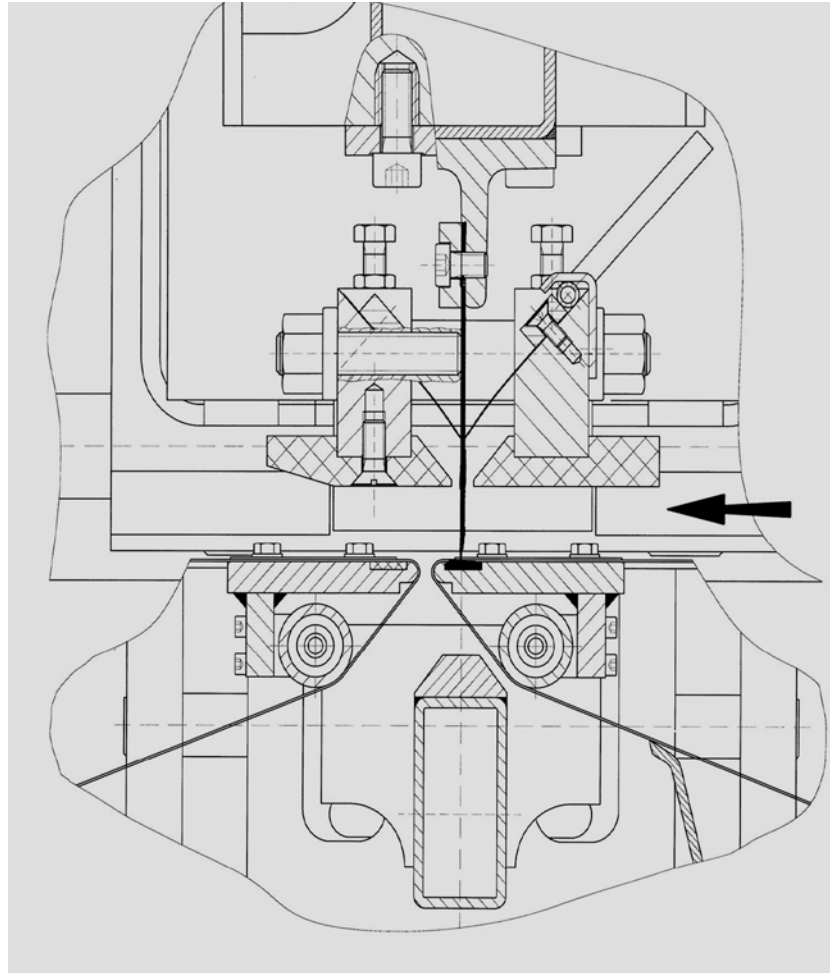
- Knife drive by top modern, advanced electronically controlled servo motors
- Programmable knife movement, adjusted to the product
- Modular Assembly Techniques (MAT)
- Cutting of the product optionally: plastic cutting ledge, feeding belt or transfer belt
- Highest hygienic standard
- Transversal knife in special design can be cooled or heated
- Ultrasonic cutting available



Standard Features: Cutting on Plastic Cutting Ledge



Standard Features: Cutting on Feeding Belt



MS 3000 EI - New Cutting Technology

- Knife drive by top modern, advanced electronically controlled servo motors,
- Programmable knife movement, adjusted to the product
- Modular Assembly Techniques (MAT)
- Cutting of the product optionally: plastic cutting ledge, feeding belt or transfer belt
- Highest hygienic standard of design
- 3m wide working width





STEP 6 – The Enrobing



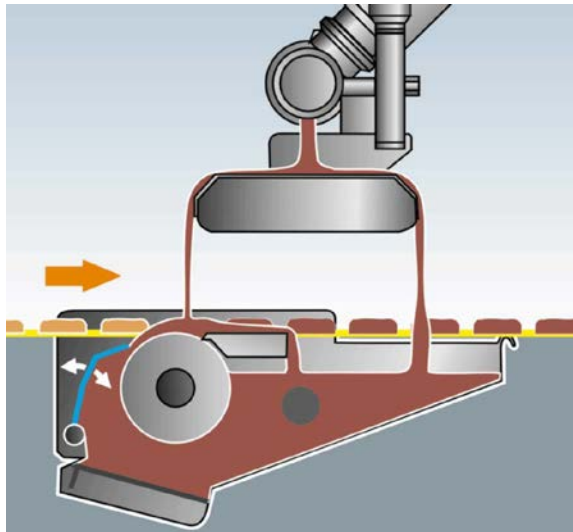
Chocoat Premium Enrober

- Exact coating weight control over the entire working width
- Easy access to all parts for cleaning and maintenance
- Constant degree of pre-crystallization of the chocolate mass in the coating machine
- Designed for long term continuous production
- PLC controlled operation

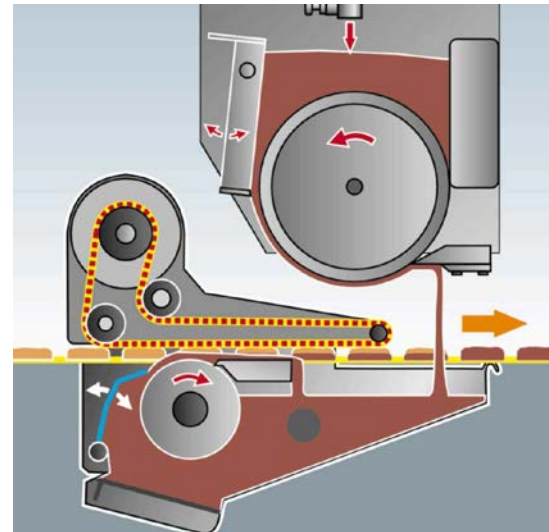


Enrober

Coating Station



Curtain Roller



Enrober

Blower Station



View into Enrober from Discharge



Enrobing Technology

- Chocoat Premium
- Chocoat Eco
- Wash down enrober
- Two colour enrober
- Ice cream enrober
- Lab units
- Bottomer



Accessories for Enrobing Lines

- Decorators
- Sprinklers
- 90° / 180° turn tables
- Tanks
- Jacketed pipe-work
- Derober



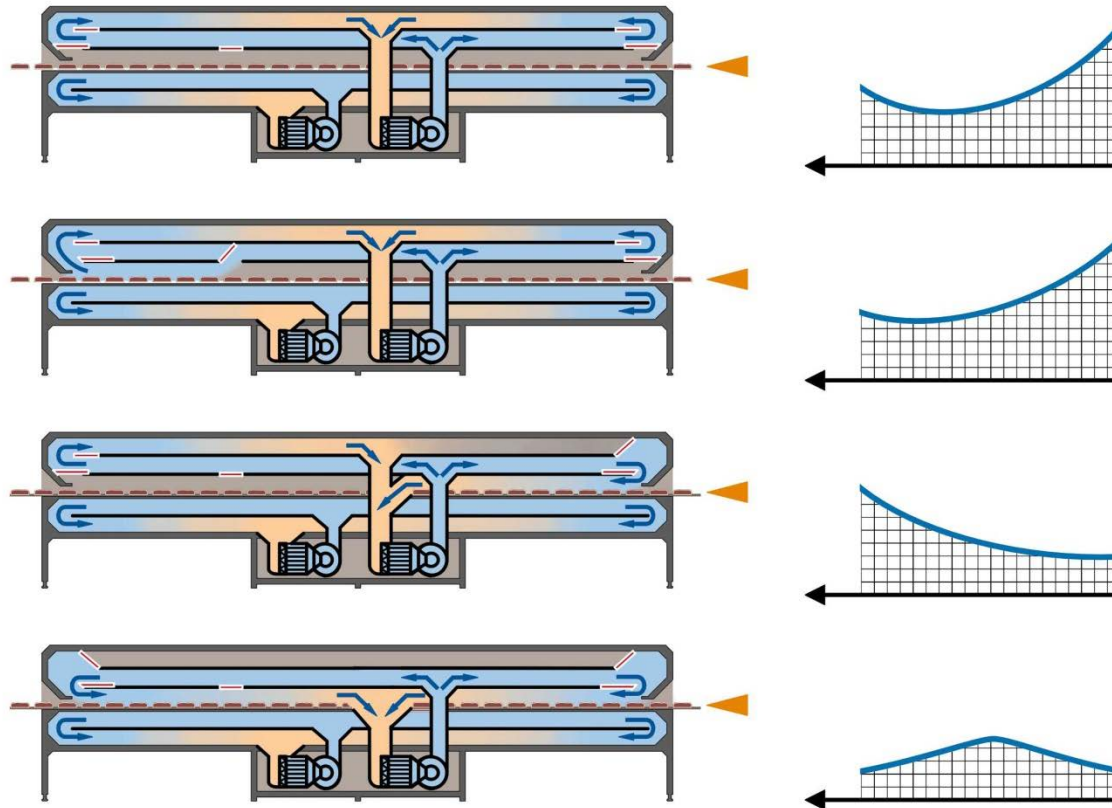
Enrober – Chocoat Quick Mass Changeover



STEP 7 – The Chocolate Cooling Universal Cooling Tunnel Type ukk



Universal Cooling Tunnel Type ukk



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